

## New Species of Lepidoptera.

By HENRY SKINNER.

### *Argynnis californica* n. sp.

♂. This species is paler in color than its related forms and has a faded or washed out appearance in comparison with its relatives. In size it is smaller than *snyderi* which it resembles in markings. It is about the same size as *calippe* Bd. and *juba* Bd. but is larger than *coronis* Behr. It can be at once separated from *calippe* by its much lighter color and from *juba* by the much duller color of the buff band on the underside of the secondaries. Both sexes are heavily silvered beneath.

♀. Quite similar to the male in color and markings.

The male expands 56 mm. and the female 58 mm.

Described from fifteen specimens from California, the type and paratypes were taken by Mr. J. G. Grundel at Alma, Santa Clara County.

I would not have ventured describing this species without a good figure if it had not been already well figured by Mr. W. H. Edwards under the name *coronis*, in his *Butterflies of North America*, vol. 3, pl. 4 of *Argynnis*. A number of years ago I compared specimens of my own with the type of *coronis* Behr in the Strecker collection. Due to Mr. Edwards' figure of this species it has been accepted as *coronis* and *snyderi*, a related species, has been considered by some persons a variety of *coronis*. The true *coronis* is very close to *juba* and *calippe*.

### *Melitaea arida* n. sp.

Upperside. Primaries dull fulvous marked with a series of small spots crossing the wing from the costa to the interior margin. The submarginal row is almost obsolete, the central spot being a crescent; the next row consists of three larger spots beyond the cell and two below, the last one small and hour-glass in shape; the last row consists of one spot near the end of the discal cell and one spot directly below it.

Secondaries same color as primaries with three rows of spots crossing the wing from the costa to the interior margin. The submarginal row consists of seven, narrow, minute yellowish crescents; the next row is composed of six minute black spots edged on the inner side by dull yellow; the next row is a curved line of minute yellowish spots; there is a yellow linear spot in the cell.

Underside. The primaries have a marginal border composed of brown and yellowish spots; the limbal area is marked by spots of two shades of fulvous.

The secondaries have a submarginal row of crescents, two near the costa and one at the lower third; the next row consists of five small black dots, the lower one very minute; the basal area is made up of several rows of spots semi-silvered.

Expanse 26-30 mm.

*Type and paratype.* Two specimens marked Cochise Co.,

Arizona, May. Received from Mr. F. Haimbach without more definite locality.

This species is close to *vesta* Edw. but the markings are much fainter and different in color, those of *vesta* being orange-fulvous. The characteristic row of orange fulvous spots so conspicuous in *vesta* is replaced in *arida* by a faint line of spots. The silvered spots on the underside of the secondaries are also characteristic.

**Erythroecia hebardi** n. sp.

In volume nine of Sir George Hampson's Catalogue of the Lepidoptera Phalaenae, p. 57, there is erected the new genus *Erythroecia* with the type species *suavis* H. Edwards. He describes a new species under the name *rhodophora* which is figured on plate 138, no. 4. The type locality given is Capitulo, Guatemala.

Last summer Mr. Morgan Hebard captured a species of *Erythroecia* at Hot Springs, Virginia, August 15th, at light, two perfect male specimens.

This appears to be a much more robust species than *rhodophora* and the primaries are much more obscured by red (crimson) and the ground color of the wings is yellow, almost orange. The orbicular and reniform do not show as in Hampson's figure. The Virginia species expands 34 mm.

It is possible that this may be a very good species, a topomorph or only a variety of *rhodophora* but additional material is needed to establish their true relationship. If they are the same species the distribution as at present known appears very strange.

**Autographa olivacea** n. sp.

♂. Head and thorax gray mixed with white hairs; tegulae gray; thoracic crest gray-white at tips; abdomen and legs gray; crests brown tipped with gray. Fore wing grey tinged with whitish olive, the medial area below the cell shining dark olive, extending from the apex and covering the outer third of the wing and extending two-thirds the distance to the inner margin; orbicular faintly indicated and not silvered; a very small silver stigma, linear and having a faint incurved point at the outer end; hind wing with a greenish tinge.

Expanse 39 mm.

*Type* one specimen sent to me by Mr. Eugene O. Murmann, taken at Los Angeles, California, August, 1916.

This species resembles *ampla* Walk. but may be readily differentiated by the olive shade of the outer half of the primary wing.

The types of these species are in the collection of The Academy of Natural Sciences of Philadelphia.